



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,172	11/25/2003	Ronald Ralph Cairo	839-1459	4331

30024 7590 10/10/2006

NIXON & VANDERHYE P.C.
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
----------	--------------

3726

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/720,172		CAIRO, RONALD RALPH	
	Examiner		Art Unit	
	Marc Jimenez		3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-14 and 16** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of the claims are directed to “a universal mandrel”. It is understood that the universal mandrel is a final product including a mandrel **12** and a sleeve **14** as shown in figure 2 of applicant’s drawings. However, the body of the claims appear to be directed to a system of parts including a plurality of sleeves. Therefore, the scope of the claims is indefinite because it is unclear whether the invention is directed to a final product having a mandrel and sleeve or a system having a mandrel and a plurality of sleeves.

3. **Claims 1-14 and 16** are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1-14 and 16 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 8-8-06. In that paper, applicant has stated the invention is directed to selecting from a plurality of sleeves, and this statement indicates that the invention is different from what is defined in the claim(s) because it appears that applicant intends to claim a system

Art Unit: 3726

rather than a product. The claims are currently directed to a product claim "a universal mandrel", not a system.

4. **Claims 1-3, 6 and 7** are rejected under 35 U.S.C. 102(b) as being anticipated by Byung-Gie et al. (US5558610).

Byung-Gie et al. teach a core mandrel **1** having an outside diameter, a plurality of adapter sleeves **20,21,3** each having an inside diameter sized to engage the core mandrel **1** outside diameter, the plurality of adapter sleeves **20,21,3** comprising varying exterior dimensions, and an interlocking mechanism **5** secured between the core mandrel **1** and a selected one of the adapter sleeves **3**, the interlocking mechanism **5** preventing the selected adapter sleeve **3** from rotating relative to the core mandrel **1**.

Regarding claims 2-3, the interlocking mechanism **5** comprises a lug. Note the slot **6a**.

Regarding claims 6 and 7, the adapter sleeve **3** is "configured to" serve as an interface connection and to serve as an intermediate expansion rate medium. Regarding claim 8, note the plurality of adapter sleeves **3,21,20** having varying exterior dimensions.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 9** rejected under 35 U.S.C. 103(a) as being unpatentable over Byung-Gie et al.

Byung-Gie et al. teach the invention cited above with the exception of using tool steel.

However, official notice is taken that the use of tool steel was well known to a person of ordinary skill in the art, at the time of the invention, to provide a strong roller material.

7. **Claims 10-12 and 16** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Byung-Gie et al. Byung-Gie et al. teach that the sleeve **20,21,3** could be made of a number of materials including ultra-hard alloy, ceramic, or hard alloy (col. 1, lines 19-23). The core mandrel 1 is made of metal. Therefore, if the sleeve is made of ceramic, it would have a thermal expansion rate lower than that of the core mandrel. Alternatively, official notice is taken that it was well known to a person of ordinary skill in the art, at the time of the invention, to have provided a sleeve having a lower thermal expansion rate than the core material, in order to provide a sleeve that can withstand high temperatures during use. Byung-Gie et al. teach the invention cited above with the exception of using tool steel. However, official notice is taken that the use of tool steel was well known to a person of ordinary skill in the art, at the time of the invention, to provide a strong roller material.

8. **Claims 4, 5, 8, 13 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Byung-Gie et al. in view of Brindley (US2005885).

Byung-Gie et al. teach the invention cited above with the exception of having a flange having a connector. Brindley teaches an alternative way to fasten a sleeve to a mandrel by using a flange **21** having a connector **23**.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Byung-Gie et al. with a flange having a connector, in light of the teachings of Brindley, in order to more securely fasten the sleeve to the core.

Response to Arguments

9. Applicant's arguments filed 8-8-06 have been fully considered but they are not persuasive.

10. Applicant argues that the rolling ring 20 of Byung-Gie do not in any manner function to accommodate varying size part diameters and each of the elements 3,21 are used on the roller at the same time. However, the claims do not recite accommodating varying size part diameters.

Furthermore, the claims do not recite whether the parts are used at the same time or not.

Applicant appears to imply that only one of the sleeves are used at one time, however, the claims require a plurality of sleeves. Therefore, it is unclear whether applicant intends to claim either a system or a product.

11. Applicant argues that Byung-Gie does not teach “a selected one of which is securable to the core mandrel”. However, this does not mean that only one sleeve is secured to the core mandrel. The claims are written in open ended format (with the limitation “comprising”) and do not preclude more than one sleeve being secured to the core mandrel.

12. Applicant argues that Byung-Gie does not teach the claimed exterior dimensions that vary from adapter sleeve to adapter sleeve. However, figure 4B shows adapter sleeves having varying exterior dimensions. The limitation “varying exterior dimensions” is broad enough to encompass any exterior dimension of each of the sleeves 21,20,3 of Byung-Gie.

Art Unit: 3726

13. The argument that the specification describes accommodating varying size part diameters is noted. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., accommodating varying part diameters) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Interviews After Final

15. Applicant note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the

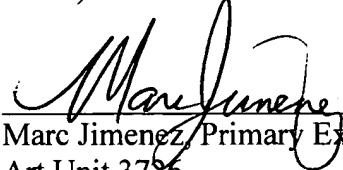
Art Unit: 3726

interview must be in writing) to clarify issues for appeal requiring only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Marc Jimenez, Primary Examiner
Art Unit 3726

MJ
9-26-06